## PERFORMANCE INDICES

*(Favorable >1.0, Unfavorable < 1.0)*

Cost Efficiency $\quad CPI \; = \; \dfrac{BCWP}{ACWP}$

Schedule Efficiency $\quad SPI \; = \; \dfrac{BCWP}{BCWS}$

## OVERALL STATUS

Percent Complete $\quad = \; \dfrac{BCWP_{CUM}}{BAC}$

Percent Spent $\quad = \; \dfrac{ACWP_{CUM}}{BAC \;\; (or \; EAC)}$

## TO COMPLETE PERFORMANCE INDEX

$$TCPI_{EAC} \; = \; \frac{WORK\;REMAINING}{COST\;REMAINING} \; = \; \frac{BAC - BCWP_{CUM}}{EAC - ACWP_{CUM}}$$
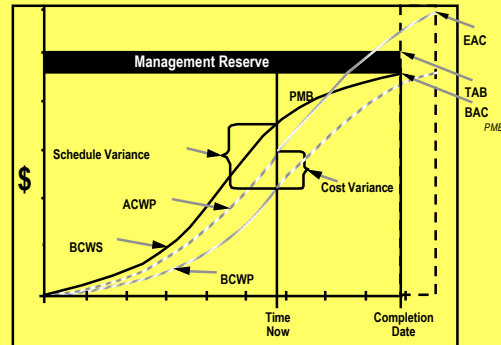
## ESTIMATE AT COMPLETION

*(EAC = ACWP + Estimate for Remaining Work)*

$$EAC_{CPI} \; = \; \frac{BAC}{CPI_{CUM}}$$

$$EAC_{Composite} \; = \; ACWP_{CUM} \; + \; \frac{BAC - BCWP_{CUM}}{(CPI_{CUM}) \bullet (SPI_{CUM})}$$

### Defense Systems Management College
### Earned Value Management Gold Card



**Cost Variance**

$$CV = BCWP - ACWP$$

**Cost Variance %**

$$CV\% = \frac{CV}{BCWP}$$

**Schedule Variance**

$$SV = BCWP - BCWS$$

**Schedule Variance%**
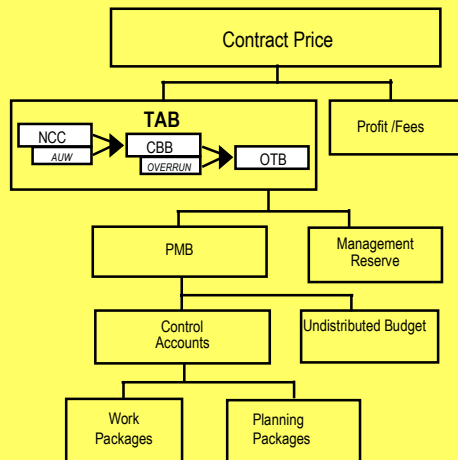
$$SV\% = \frac{SV}{BCWS}$$

**Variance At Completion**

$$VAC = BAC - EAC$$

## TERMINOLOGY



| | | |
|---|---|---|
| **NCC** | - Negotiated Contract Cost | *(Contract price less profit/fee(s))* |
| **AUW** | - Authorized Unpriced Work | *(Work approved, but not yet negotiated)* |
| **CBB** | - Contract Budget Base | *(Sum of NCC and AUW)* |
| **OTB** | - Over Target Baseline | *(Sum of CBB and recognized overrun)* |
| **TAB** | - Total Allocated Budget | *(Sum of all budgets for work on contract-NCC,CBB or OTB)* |
| **BAC** | - Budget At Completion | *(Total budget--for total contract thru any given level)* |
| **PMB** | - Performance Measurement Baseline | *(Contract time-phased budget plan)* |
| **MR** | - Management Reserve | *(Budget withheld by contractor PM for unknowns/risk mgt)* |
| **UB** | - Undistributed Budget | *(Broadly defined activities not yet distributed to CAs)* |
| **CA** | - Control Account | *(Lowest CWBS element assigned to a single focal point to plan and control the scope/sched/budget)* |
| **WP** | - Work Package | *(Near-term, detail-planned activities within a CA)* |
| **PP** | - Planning Package | *(Far-term CA activities not yet defined into WPs)* |
| **EAC** | - Estimate At Completion | *(Est. of total cost--for total contract thru any given level)* |
| **BCWS** | - Budgeted Cost of Work Scheduled | *-- PLAN (Value of work planned to be done)* |
| **BCWP** | - Budgeted Cost of Work Performed | *-- EARNED VALUE (Value of work accomplished)* |
| **ACWP** | - Actual Cost of Work Performed | *-- ACTUAL COST (Cost of work accomplished)* |

## EVM POLICY (as defined in DOD 5000.2-R)

**EVMS Criteria Approach** *(Management control system must meet Criteria):*
- Required for non-FFP contract exceeding $70M RDT&E or $300M in procurement *(CY96$)*.
  - Below-threshold use may be appropriate—consider benefits, risk and criticality.
- Contractor must establish, maintain, and use a system that meets the intent of the 32 Criteria.
- Cost Performance Report (CPR) is delivered as a CDRL item.
  - 5 Formats *(WBS, Organization, Baseline, Staffing, and Explanations)*.

**C/SSR Approach** *(Management control system not required to meet Criteria):*
- Required for non-FFP contract exceeding $6M *(CY96$)* and 12 months in length.
- Contractor system with reasonably objective earned value methods is adequate.
- Cost/Schedule Status Report (C/SSR) is delivered as a CDRL item.
  - 2 Formats *(WBS and Explanations)*